



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/297,483	07/19/1999	SHUNICHI SEKI	005317-20009	9831

26021 7590 06/17/2003

HOGAN & HARTSON L.L.P.
500 S. GRAND AVENUE
SUITE 1900
LOS ANGELES, CA 90071-2611

EXAMINER

CLEVELAND, MICHAEL B

ART UNIT PAPER NUMBER

1762

33

DATE MAILED: 06/17/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

Advisory Action

Application No.

09/297,483

Applicant(s)

SEKI ET AL.

Examiner

Michael Cleveland

Art Unit

1762

--The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

THE REPLY FILED 27 May 2003 FAILS TO PLACE THIS APPLICATION IN CONDITION FOR ALLOWANCE. Therefore, further action by the applicant is required to avoid abandonment of this application. A proper reply to a final rejection under 37 CFR 1.113 may only be either: (1) a timely filed amendment which places the application in condition for allowance; (2) a timely filed Notice of Appeal (with appeal fee); or (3) a timely filed Request for Continued Examination (RCE) in compliance with 37 CFR 1.114.

PERIOD FOR REPLY [check either a) or b)]

- a) ☒ The period for reply expires 3 months from the mailing date of the final rejection.
- b) ☐ The period for reply expires on: (1) the mailing date of this Advisory Action, or (2) the date set forth in the final rejection, whichever is later. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of the final rejection. ONLY CHECK THIS BOX WHEN THE FIRST REPLY WAS FILED WITHIN TWO MONTHS OF THE FINAL REJECTION. See MPEP 706.07(f).

Extensions of time may be obtained under 37 CFR 1.136(a). The date on which the petition under 37 CFR 1.136(a) and the appropriate extension fee have been filed is the date for purposes of determining the period of extension and the corresponding amount of the fee. The appropriate extension fee under 37 CFR 1.17(a) is calculated from: (1) the expiration date of the shortened statutory period for reply originally set in the final Office action; or (2) as set forth in (b) above, if checked. Any reply received by the Office later than three months after the mailing date of the final rejection, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

1. ☐ A Notice of Appeal was filed on _____. Appellant's Brief must be filed within the period set forth in 37 CFR 1.192(a), or any extension thereof (37 CFR 1.191(d)), to avoid dismissal of the appeal.
2. ☐ The proposed amendment(s) will not be entered because:
- (a) ☐ they raise new issues that would require further consideration and/or search (see NOTE below);
- (b) ☐ they raise the issue of new matter (see Note below);
- (c) ☐ they are not deemed to place the application in better form for appeal by materially reducing or simplifying the issues for appeal; and/or
- (d) ☐ they present additional claims without canceling a corresponding number of finally rejected claims.

NOTE: _____

3. ☒ Applicant's reply has overcome the following rejection(s): See attached.
4. ☐ Newly proposed or amended claim(s) _____ would be allowable if submitted in a separate, timely filed amendment canceling the non-allowable claim(s).
5. ☐ The a) ☐ affidavit, b) ☐ exhibit, or c) ☐ request for reconsideration has been considered but does NOT place the application in condition for allowance because: _____.
6. ☐ The affidavit or exhibit will NOT be considered because it is not directed SOLELY to issues which were newly raised by the Examiner in the final rejection.
7. ☒ For purposes of Appeal, the proposed amendment(s) a) ☐ will not be entered or b) ☒ will be entered and an explanation of how the new or amended claims would be rejected is provided below or appended.

The status of the claim(s) is (or will be) as follows:

Claim(s) allowed: _____

Claim(s) objected to: _____

Claim(s) rejected: 37-49, 51, 53, 54, 56 and 62-128.

Claim(s) withdrawn from consideration: _____

8. ☐ The proposed drawing correction filed on _____ is a) ☐ approved or b) ☐ disapproved by the Examiner.
9. ☐ Note the attached Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____.
10. ☒ Other: Notice of References Cited (PTO-892)

DETAILED ACTION

1. The proposed amendment would be entered upon the timely filing of a proper Appeal Brief in support of a timely-file proper Notice of Appeal. It would overcome the rejections of claims 53 and 54 under 35 USC 112, 2nd paragraph and under 35 USC 103 over Liu '407 in view of Cao '281 and Jonas '515 (and Jonas '483). The rejections of claims 53 and 54 under 35 USC 103 over Liu '407 in view of Cao '281, Jonas '515, and Taniguchi (and Jonas '483) would be maintained.

Information Disclosure Statement

2. The information disclosure statement filed 5/27/2003 fails to comply with 37 CFR 1.97(d) because it lacks a statement as specified in 37 CFR 1.97(e). It has been placed in the application file, but the information referred to therein has not been considered.

Response to Arguments

3. Applicant's arguments filed 5/27/2003 have been fully considered but they are not persuasive.

4. Applicant argues that the Examiner has failed to show both 1) the claimed anode layer and 2) the claimed hole-injecting transport layer that is distinct from the anode layer. The assertion is incorrect. Example 8 teaches a bilayer anode that contains 1) an anode layer of ITO and 2) another anode layer (An anode is a hole-injecting and transporting layer) of PEDT/PSS, which is distinct from the first anode layer because it is a different material. The Examiner described this aspect of the prior art in paragraph 4 of the prior Office Action:

"For instance, '281 teaches that a bilayer anode comprising ITO overcoated with a layer of PEDT doped with PSS may be used as the anode instead of ITO (col. 15, lines 34-59). Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to have used organic EL material rather than inorganic phosphors and an ITO/PEDT-PSS bilayer anode instead of the ITO anode with the expectation of similar results."

and paragraph 8:

"Applicant's arguments regarding the use of a hole-injecting and transporting layer separate from the anode layer are unconvincing in view of Example 8 of Cao '281. Differences in terminology will not be found to overcome this teaching."

Art Unit: 1762

Furthermore, regarding the description of the PEDT/PSS layer of Cao as an anode, Woo 6,169,163 has been cited to demonstrate the use of PEDT/PSS as a hole-transporting layer. Thus, the difference between the PEDT/PSS layer of Cao as "a hole-transporting layer" and "an anode" is merely semantic.

In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Applicant's arguments regarding the use of an ink-jet head is incorrect. The Examiner has given official notice that ink-jet printing is a notoriously well known printing method, and therefore suggested by Jonas. Applicant has not timely challenged the official notice, and therefore has conceded the point. Further, such has been demonstrated by the references already of record in the case. See, in particular, those cited in the rejection mailed 2/6/2000 (Paper No. 3).

Applicant's argues that ink-jet printing is not well-known in the art of EL elements. The argument is incorrect and is clearly contradicted by the record. See Shirasaki 5,895,692, col. 7, lines 14-23.

Applicant argues that ink-jet printing is not well-known for independently filling holes between walls because it had not been done before. Essentially, Applicant argues that the process is not novel. However, the argument does not address the question of obviousness. Applicant has not provided any explanation for the contention that one of ordinary skill in the art, having read Shirasaki's description of using ink-jet printing to deposit electroluminescent inks for different color pixels in desired locations on a substrate would not have expected to have been able to have deposited those same inks between partition walls dividing the pixels, given that the partitions are the areas where the inks are not desired.

Also, it is the Examiner's position that Applicant has not properly judged the state of the art. The Examiner cites WO98/24271 of interest for its teachings of ink-jet printing EL materials between walls on a substrate. The Examiner also cites Kashiwazaki et al. (U.S. Patent 5,716,739) and Nakazawa et al. (U.S. Patent 5,948,577) of interest for their teachings of ink-jet

Art Unit: 1762

printing green, red, and blue inks between partition walls in the closely related field of forming color filters for display devices.

Applicant's arguments regarding flushing time, dot density, linearity of flight, and lubricant are unconvincing because they are not supported by a showing of evidence commensurate in scope with the claims. Furthermore, the asserted advantages are not unexpected because they result from the surface tension of the ink, which is a well known result-effective variables in ink-jet printing as already established in the record of the case.

Applicant argues that they have timely challenged the Official Notice that ink-jet printing is a notoriously well known printing method in the responses of 5/28/2002 and 12/19/2002. The notice that ink-jet printing is a well-known printing method of applying material to selected locations was made in paper No. 12 (paragraph 13). Applicant challenged the statement in the succeeding Advisory action. However, the record is replete with evidence that the Examiner's assertion is correct (e.g., Shirasaki and all references cited in the rejection mailed 2/6/2000).

Applicant requests that the Examiner cite a reference that teaches "forming a hole injecting and transporting layer by independently filling each of the openings with a composition... using an ink-jet head, the composition comprising (1) a conductive material containing at least a lubricant, polyethylene dioxythiophene, and polystyrene sulfonic acid, and (2) a solvent" in support of his well-known assertion. The request is denied because the Examiner has not asserted that "forming a hole injecting and transporting layer by independently filling each of the openings with a composition... using an ink-jet head, the composition comprising (1) a conductive material containing at least a lubricant, polyethylene dioxythiophene, and polystyrene sulfonic acid, and (2) a solvent" is well known. What the Examiner has asserted is well known is that "ink-jet printing is a well-known method of supplying material to selected locations." (Paper No. 12, paragraph 13, still present in Paper No. 30, paragraph 4). In order to convincingly traverse on this grounds, Applicant MUST 1) state for the record that at the time of filing, ink-jet printing was NOT a well-known method of supplying material to selected locations, and 2) provide convincing explanation why each reference of record does not contradict the statement. Responses that ink-jet printing was not well known in particular contexts other than "supplying material to selected locations" will not be considered

Art Unit: 1762

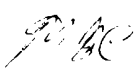
responsive to the statement. However, the art cited above is considered relevant to Applicant's arguments.


In response to applicant's argument that the examiner's conclusion of obviousness is based upon improper hindsight reasoning, it must be recognized that any judgment on obviousness is in a sense necessarily a reconstruction based upon hindsight reasoning. But so long as it takes into account only knowledge which was within the level of ordinary skill at the time the claimed invention was made, and does not include knowledge gleaned only from the applicant's disclosure, such a reconstruction is proper. See *In re McLaughlin*, 443 F.2d 1392, 170 USPQ 209 (CCPA 1971). Applicant is reminded that the selection of a known material or method based on its suitability for its intended use has been held to support a *prima facie* case of obviousness. *Sinclair & Carroll Co. v. Interchemical Corp.*, 325 U.S. 327, 65 USPQ 297 (1945). See MPEP 2144.07.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Cleveland whose telephone number is (703) 308-2331. The examiner can normally be reached on 8-5:30 M-F, with alternate Mondays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Shrive Beck can be reached on (703) 308-2333. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 306-3186 for regular communications and (703) 306-3186 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-0661.


MBC
June 12, 2003


SHRIVE P. BECK
SUPERVISOR, ART UNIT 1762